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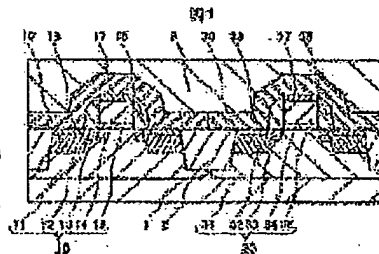
JP

(54) SEMICONDUCTOR DEVICE AND MANUFACTURING METHOD THEREOF

(57)Abstract:

PROBLEM TO BE SOLVED: To achieve a semiconductor device that has improved drain current characteristics both in the n-channel field-effect transistor and the p-channel field-effect transistor in the semiconductor device having an n-channel field-effect transistor and a p-channel field-effect transistor.

SOLUTION: In the semiconductor device having the n-channel field-effect transistor 10 and the p-channel field-effect transistor 30, a film where film stress is at the side of tensile stress is used for a stress control film 19 for covering the gate electrode 15 of the n-channel field-effect transistor 10. In a stress control film 39 over the gate electrode 35 in the p-channel field-effect transistor, a film at the compressing stress side of the film stress is used rather than the film 19 of the p-channel transistor 10, thus possibly improving the drain current both in the n-channel and p-channel transistors and hence improving the overall characteristics.

<http://www19.ipdl.inpit.go.jp/PA1/result/detail/main/wAAAr6a4RnDA415086708P...> 2010/12/02